

REMARKS

One independent claim (29) is pending.

The examiner has withdrawn the obviousness rejection of claim 29 based on Reddersen, Marom '143, and Marom '095, and substituted a new anticipation rejection based on Barkan (US 5278397). The examiner is urged to reconsider and withdraw the rejection.

The invention has to do with improving the light collection optical elements of a bar code scanner by providing a collection lens that includes an axicon element. In the words of claim 29 (with the amendment made herein shown):

an axicon element shaped and positioned to elongate the focal depth of the collection lens and thereby extend the working range over which the bar code symbol can be resolved by the imaging element

Barkan employs a pair of half-axicons in the collection lens of a bar code scanner, but for an entirely different purpose. In Barkan, each half axicon provides, in effect, a different spot size to the laser beam passing over the bar code symbol. In effect, two laser beams, of different spot size, are created from a single beam. This allows the scanner, for example, to decode high and low density symbols.

But Barkan does not suggest using an axicon "to elongate the focal depth of the collection lens and thereby extend the working range" of the scanner. The examiner's references to specific portions of Barkan (paragraph 5 of the office action) merely refer to this suggestion of two half axicons, each producing, in effect, a different spot size on the bar code symbol. The examiner indicates in his rejection (id; emphasis supplied):

It is noted that axicon optical elements produce line images along the optical axis of the axicon with the source, and hence will focus along a range of distance along the optical axis

Barkan certainly does not "note" any such thing. Instead the reference is using the half axicons to split the optical path into two paths, and provide thereby two spot sizes. That does not teach that the line images will be created along the optical axis. Perhaps, the

examiner is referring to what applicants have noted in the patent application, but that would not, of course, be a proper basis for rejecting the claim.

Accordingly, claim 29 is in condition for allowance.

The remaining claims are all properly dependent on claim 29, and thus allowable therewith. Each of the dependent claims adds one or more further limitations that enhance patentability, but those limitations are not presently relied upon. For that reason, and not because applicants agree with the examiner, no rebuttal is offered to the examiner's reasons for rejecting the dependent claims.

Allowance of the application is requested.